

VERSION SHOWING MARKED CHANGES

IN THE CLAIMS:

1. Canceled.

2. Canceled.

3. (Amended) A compound comprising a metal complexed with a chelating group attached to a gastrin releasing peptide (GRP) receptor agonist, the gastrin releasing peptide receptor agonist including a bombesin agonist binding moiety, said compound having a structure of the formula X-Y-B wherein X is a metal chelating group, Y is a spacer group or covalent bond and B is a gastrin releasing peptide receptor agonist which includes a bombesin agonist binding moiety ~~The compound of claim 2 wherein~~ and Y is selected from the group consisting of at least one amino acid residue, a hydrocarbon chain and a combination thereof.

2. 4. (Amended) The compound of claim 2 ¹/~~2~~ wherein X is selected from the group consisting of DOTA, DTPA, S4, N3S, N2S2, NS3 and derivatives thereof.

B 3. 5. (Original) The compound of claim ²/~~4~~ wherein Y is selected from the group consisting of at least one amino acid residue, a hydrocarbon chain and a combination thereof and B is selected from the group consisting of BBN(7-14) and BBN(8-14).

4. 6. (Original) The compound of claim ²/~~4~~ wherein X is DOTA or a derivative thereof.

5. 7. (Original) The compound of claim ⁴/~~6~~ wherein Y is selected is selected from the group consisting of at least one amino acid residue, a hydrocarbon chain and a combination thereof and B is selected from the group consisting of BBN(7-14) and BBN(8-14).

6. 8. (Original) The compound of claim ⁵/~~7~~ wherein Y is a combination of L-glutamine and a hydrocarbon chain.

7. 9. (Original) The compound of claim ⁶/~~8~~ wherein Y is a combination of L-glutamine and a C1 to C10 hydrocarbon chain.

8. 10. (Original) The compound of claim ⁷/~~9~~ wherein Y is selected from the group consisting of glycine, β -alanine, gamma-aminobutanoic acid, 5-aminovaleric acid (5-

Ava), 6-aminohexanoic acid, 7-aminoheptanoic acid, 8-aminooctanoic acid (8-Aoc), 9-aminononanoic acid, 10-aminodecanoic acid and 11-aminoundecanoic acid (11-Aun).

~~9~~ 11. (Original) The compound of claim ~~4~~² wherein X is N3S or a derivative thereof.

~~10~~ 12. (Original) The compound of claim ~~11~~⁹ wherein Y is selected from the group consisting of at least one amino acid residue, a hydrocarbon chain and a combination thereof and B is selected from the group consisting of BBN(7-14) and BBN(8-14).

~~11~~ 13. (Original) The compound of claim ~~12~~¹⁰ wherein Y is gly-ser-gly.

~~14~~ 14. Canceled.

~~12~~ 15. (Amended) A complex comprising a metal and a compound having a structure of the formula X-Y-B wherein X is a metal chelating group, Y is a spacer group or covalent bond and B is a gastrin releasing peptide (GRP) receptor agonist, the GRP receptor agonist including a bombesin agonist moiety ~~The complex of claim 14 wherein and the metal is selected from the group consisting of transition metals, lanthanides, auger-electron emitting isotopes, and α -, β - or γ -emitting isotopes.~~

~~13~~ 16. (Amended) The complex of claim ~~14~~¹² wherein the metal is selected from the group consisting of: 105Rh-, 99mTc-, 186/188Re-, 153Sm-, 166Ho-, 111In-, 90Y-, 177Lu-, 149Pm-, 166Dy-, 175Yb-, 199Au- and 117mSn-.

~~14~~ 17. (Original) The complex of claim ~~16~~¹³ wherein X is selected from the group consisting of DOTA, DTPA, S4, N3S, N2S2, NS3 and derivatives thereof.

~~15~~ 18. (Original) The complex of claim ~~17~~¹⁴ wherein Y is selected from the group consisting of at least one amino acid residue, a hydrocarbon chain and a combination thereof and B is selected from the group consisting of BBN(7-14) and BBN(8-14).

~~16~~ 19. (Original) The complex of claim ~~18~~¹⁵ wherein X is DOTA or a derivative thereof.

~~17~~ 20. (Original) The complex of claim ~~19~~¹⁶ wherein Y is selected is selected from the group consisting of at least one amino acid residue, a hydrocarbon chain and a combination thereof and B is selected from the group consisting of BBN(7-14) and BBN(8-14).

~~18~~ 21. (Original) The complex of claim ~~20~~¹⁷ wherein Y is a combination of L-glutamine and a hydrocarbon chain.

~~19~~ ²⁰ 22. (Original) The complex of claim ~~21~~ ²⁰ wherein Y is a combination of L-glutamine and a C1 to C10 hydrocarbon chain.

~~20~~ ¹⁹ 23. (Original) The complex of claim ~~22~~ ¹⁹ wherein Y is selected from the group consisting of glycine, β -alanine, gamma-aminobutanoic acid, 5-aminovaleric acid (5-Ava), 6-aminohexanoic acid, 7-aminoheptanoic acid, 8-aminooctanoic acid (8-Aoc), 9-aminononanoic acid, 10-aminodecanoic acid and 11-aminoundecanoic acid (11-Aun).

~~21~~ ²⁰ 24. (Original) The complex of claim ~~23~~ ²⁰ wherein Y is 8-aminooctanoic acid.

~~22~~ ²⁰ 25. (Original) The complex of claim ~~23~~ ²⁰ consisting of 90Y-DOTA-8-Aoc-BBN(7-14)NH₂.

~~23~~ ²⁰ 26. (Original) The complex of claim ~~23~~ ²⁰ consisting of 111In-DOTA-8-Aoc-BBN(7-14) NH₂.

~~24~~ ²⁰ 27. (Original) The complex of claim ~~23~~ ²⁰ consisting of 177Lu-DOTA-8-Aoc-BBN(7-14) NH₂.

~~25~~ ²⁰ 28. (Original) The complex of claim ~~23~~ ²⁰ consisting of 149Pm-DOTA-8-Aoc-BBN(7-14) NH₂.

~~26~~ ²⁰ 29. (Original) The complex of claim ~~23~~ ²⁰ consisting of 90Y-DOTA-5-Ava-BBN(7-14)NH₂.

~~27~~ ²⁰ 30. (Original) The complex of claim ~~23~~ ²⁰ consisting of 111In-DOTA-5-Ava-BBN(7-14) NH₂.

~~28~~ ²⁰ 31. (Original) The complex of claim ~~23~~ ²⁰ consisting of 177Lu-DOTA-5-Ava-BBN(7-14) NH₂.

~~29~~ ²⁰ 32. (Original) The complex of claim ~~23~~ ²⁰ consisting of 149Pm-DOTA-5-Ava-BBN(7-14) NH₂.

~~30~~ ¹³ 33. (Original) The complex of claim ~~16~~ ¹³ wherein X is N3S or a derivative thereof.

~~31~~ ³⁰ 34. (Original) The complex of claim ~~33~~ ³⁰ wherein Y is selected from the group consisting of at least one amino acid residue, a hydrocarbon chain and a combination thereof and B is selected from the group consisting of BBN(7-14) and BBN(8-14).

~~32~~ ³¹ 35. (Original) The complex of claim ~~34~~ ³¹ wherein Y is gly-ser-gly.

~~33~~ ³¹ 36. (Original) The complex of claim ~~34~~ ³¹ consisting of 99mTc-N3S-gly-ser-gly-BBN(7-14)NH₂.

B

~~37~~ 37. Canceled.

~~38~~ 38. (Amended) A method of treating patients using radioisotope therapy by administering an effective amount of a pharmaceutical comprising a metal complex with a chelating group with a GRP receptor agonist, the GRP receptor agonist including a bombesin agonist moiety ~~The method according to claim 37, wherein said method includes administering an effective amount of a the complex comprising a metal and a compound having a structure of the formula X-Y-B wherein X is a metal chelating group, Y is a spacer group or covalent bond and B is a gastrin releasing peptide receptor agonist which includes a bombesin agonist binding moiety.~~

~~39~~ 39. (Original) The method of claim ~~38~~ 34 wherein the metal is selected from the group consisting of transition metals, lanthanides, auger-electron emitting isotopes, and α -, β - or γ -emitting isotopes.

~~40~~ 40. (Original) The method of claim ~~39~~ 34 wherein the metal is selected from the group consisting of: 105Rh-, 99mTc-, 186/188Re-, 153Sm-, 166Ho-, 111In-, 90Y-, 177Lu-, 149Pm-, 166Dy-, 175Yb-, 199Au- and 117mSn-.

~~41~~ 41. (Original) The method of claim ~~40~~ 36 wherein X is selected from the group consisting of DOTA, DTPA, S4, N3S, N2S2, NS3 and derivatives thereof.

~~42~~ 42. (Original) The method of claim ~~41~~ 37 wherein X is DOTA or a derivative thereof.

~~43~~ 43. (Original) The method of claim ~~42~~ 38 wherein Y is selected from the group consisting of at least one amino acid residue, a hydrocarbon chain and a combination thereof and B is selected from the group consisting of BBN(7-14) and BBN(8-14).

~~44~~ 44. (Original) The method of claim ~~43~~ 39 wherein Y is a combination of L-glutamine and a hydrocarbon chain.

~~45~~ 45. (Original) The method of claim ~~44~~ 40 wherein Y is selected from the group consisting of glycine, β -alanine, gamma-aminobutanoic acid, 5-aminovaleric acid (5-Ava), 6-aminohexanoic acid, 7-aminoheptanoic acid, 8-aminooctanoic acid (8-Aoc), 9-aminononanoic acid, 10-aminodecanoic acid and 11-aminoundecanoic acid (11-Aun).

~~46~~ 46. (Original) A method of imaging a patient by administering to a subject a diagnostically effective amount of a compound as set forth in claim ~~45~~ 41.

~~43~~ 44. (Original) The method of claim ~~42~~ 46, wherein said method includes administering an effective amount of a complex comprising a metal and a compound having a structure of the formula X-Y-B wherein X is a metal chelating group, Y is a spacer group or covalent bond and B is a gastrin releasing peptide receptor agonist which includes a bombesin agonist binding moiety.

~~44~~ 48. (Original) The method of claim ~~47~~ 47 wherein the metal is selected from the group consisting of transition metals, lanthanides, auger-electron emitting isotopes, and α -, β - or γ -emitting isotopes.

~~45~~ 49. (Original) The method of claim ~~48~~ 48 wherein X is selected from the group consisting of DOTA, DTPA, S4, N3S, N2S2, NS3 and derivatives thereof.

~~46~~ 50. (Original) The method of claim ~~49~~ 49 wherein X is N3S or a derivative thereof.

~~47~~ 51. (Original) The method of claim ~~50~~ 50 wherein Y is selected is selected from the group consisting of at least one amino acid residue, a hydrocarbon chain and a combination thereof and B is selected from the group consisting of BBN(7-14) and BBN(8-14).

~~48~~ 52. (Original) The method of claim ~~51~~ 51 wherein Y is gly-ser-gly.

~~49~~ 53. (Previously Amended) A method of forming a therapeutic or diagnostic compound comprising the step of reacting a metal complexed with a chelating group with a GRP receptor agonist the receptor agonist including a bombesin agonist moiety.

~~50~~ 54. (Original) The method of claim ~~53~~ 53, wherein said method includes reacting a metal with a compound having a structure of the formula X-Y-B wherein X is a metal chelating group, Y is a spacer group or covalent bond and B is a gastrin releasing peptide receptor agonist which includes a bombesin agonist binding moiety.

~~51~~ 55. (Original) The method of claim ~~54~~ 54 wherein the metal is selected from the group consisting of transition metals, lanthanides, auger-electron emitting isotopes, and α -, β - or γ -emitting isotopes.

~~52~~ 56. (Original) The method of claim ~~55~~ 54 wherein the metal is selected from the group consisting of: ^{99m}Tc - and $^{186/188}\text{Re}$ -.

⁵²
~~57~~ (Original) The method of claim ~~56~~⁵² wherein Y is selected is selected from the group consisting of at least one amino acid residue, a hydrocarbon chain and a combination thereof.

⁵⁴
~~58~~ (Original) The method of claim ~~57~~⁵² wherein X is selected from the group consisting of DOTA, DTPA, S4, N3S, N2S2, NS3 and derivatives thereof.

⁵⁵
~~59~~ (Original) The method of claim ~~58~~⁵⁴ wherein B is selected from the group consisting of BBN(7-14) and BBN(8-14).

⁵⁶
~~60~~ (Original) The method of claim ~~59~~⁵⁵ wherein X is DOTA or a derivative thereof and Y is selected from the group consisting of glycine, β -alanine, gamma-aminobutanoic acid, 5-aminovaleric acid (5-Ava), 6-aminohexanoic acid, 7-aminoheptanoic acid, 8-aminooctanoic acid (8-Aoc), 9-aminononanoic acid, 10-aminodecanoic acid and 11-aminoundecanoic acid (11-Aun).

⁵⁷
~~61~~ (Original) The method of claim ~~60~~⁵⁶ wherein X is N3S or a derivative thereof and Y is gly-ser-gly.
